IN THE CLAIMS:

Please amend the claims as follows:

1. (three times amended) A base station array antenna assembly having an operating frequency and a vertical radiation pattern with a main lobe axis defining a downtilt angle with respect to the earth's surface, the antenna assembly comprising:

a plurality of antenna means in first, second, and third antenna groups physically disposed along a backplane, the backplane having a longitudinal axis along which the antenna means are disposed;

differential phase adjustment means electrically connected [disposed] on a path of transmission line means between the first and third antenna groups configured to simultaneously advance a phase angle of a signal to one of said first and third antenna groups and delay the phase angle of said signal to the other of said first and third antenna groups;

such that adjustment of the phase adjustment means results in variation of the vertical radiation pattern downtilt angle between a first fixed position and a second fixed position;

said differential phase adjustment means including coupling means arcuately moveable along an arcuate section of said transmission line means to cause said simultaneous advance of a phase angle of a signal to one of said first and third antenna groups and a delay of the phase angle of said signal to the other of said first and third antenna groups.

24. (three times amended) A base station array antenna assembly having an operating frequency and a vertical radiation pattern with a main lobe axis defining a downtilt angle with respect to the earth's surface, the antenna assembly comprising:

a plurality of antennas in first, second, and third antenna groups physically disposed along a backplane, the backplane having a longitudinal axis along which the antennas are disposed;

a phase adjustment mechanism electrically connected [disposed] between the first and third antenna groups, the phase adjustment mechanism including:

an input coupling element;

a movable coupling section having a pivotally mounted first end electromagnetically coupled to the input coupling element; and

a semicircular, air-substrated transmission line section electromagnetically coupled to a second end of the movable coupling section;

such that pivotal position adjustment of the phase adjustment mechanism results in variation of the vertical radiation pattern downtilt angle between a first fixed position and a second fixed position.

32. (three times amended) A base station array antenna assembly having an operating frequency and a vertical radiation pattern with a main lobe axis defining a downtilt angle with respect to the earth's surface, the antenna assembly comprising:

a plurality of antennas in first, second, and third antenna groups physically disposed along a backplane, the backplane having a longitudinal axis along which the antennas are disposed;

a phase adjustment mechanism electrically connected [disposed] between the first and third antenna groups, the phase adjustment mechanism including:

an input coupling element;

a movable coupling section having a pivotally mounted first end electromagnetically coupled to the input coupling element; and

a semicircular, air-substrated transmission line section electromagnetically coupled to a second end of the movable coupling section;

the phase adjustment mechanism having a range of adjustment including a minimum downtilt position, a mid-point, and a maximum downtilt position;

a drive mechanism coupled to the movable coupling section;

electrical path lengths at the operating frequency, from the input coupling element to each of the antennas, are selected to define a progressive phase shift between each of the antennas such that, with the phase adjustment mechanism set at its mid-point, the vertical radiation pattern downtilt angle is approximately 7 degrees;

such that adjustment of the phase adjustment mechanism results in variation of the vertical radiation pattern downtilt angle.

50. (new) A plurality of antenna assemblies each as defined in claim 1, supported by a tower or other common support structure.

51. (new) The assemblies of claim 50 designed such that each assembly covers a sector of a cell.

52. (new) The assemblies of claim 51 comprising three in number, wherein each of the

assemblies covers a 120 degree sector of a cell.

53. (new) The assemblies of claim 50, wherein each assembly is coupled to a drive mechanism receiving control inputs provided from a remote location.

54. (new) The assemblies of claim 53, wherein each assembly provides beam position information to the remote location.

55. (new) The assemblies of claim 54, wherein the position information is provided in each assembly by a position detector.

56. (new) The assemblies of claim 55 wherein the position detector comprises a Hall effect sensor, a synchro/servo system, or optical encoder.